## **EXHIBIT 3**

3/28/2006 Letter from NJDEP to Motiva – Exhibits Available Upon Request from the Court (SH-NJ-SCI447080)



# State of New Jersey Department of Environmental Protection

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Governor

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Commissioner

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MAR 2 8 2009

REC'D MAR 31 2006

Doug Weimer Motiva Enterprises c/o Shell Oil Products US 3800 Pickett Road Fairfax, VA 22031

Re: Shell Service Station

Route 17 South & Franklin Tumpike

Ridgewood, Bergen County

Case #87-06-25-03M (aka: #95-02-23-1341, #98-06-17-0832-20 and #06-02-23-1845-07)

UST #0047397

On-site Remedial Action Progress Report Dated: January 2004, October 2004, January 2005 and January 2006

On-site Remedial Action Progress & Underground Storage Tank System Piping Closure Report Dated: April and July 2004

Off-site Remedial Action Workplan Dated: July 2005

Interim Classification Exception Area Dated: December 2005

SEC#3

Dear Mr Weimer:

Pursuant to the Authority vested in the Commissioner of the New Jersey Department of Environmental Protection (Department) by the Underground Storage of Hazardous Substances Act (N.J.S.A. 58:10A-21 et seq.), the above referenced Remedial Action Workplan (RAW), submitted by EnviroTrac Environmental Services (EnviroTrac) on behalf of Motiva Enterprises, LLC c/o Shell Oil Products US (Shell OPUS), is hereby approved by the Department as conditioned below:

Shell OPUS shall initiate the RAW, as conditioned in this RAW Approval, within forty-five (45) days of receipt of this letter and begin implementation of this RAW according to the proposed time schedule. Please be advised that this is a limited onsite and full offsite RAW approval. If any current or anticipated delay is caused by events beyond the control of Shell OPUS, then Shell OPUS shall notify the Department in writing within 10 calendar days of such event. Shell OPUS shall precisely describe the cause of the delay and request an extension. Increases in the costs or expenses incurred in fulfilling the requirements outlined in this letter shall not be considered a basis for an extension and such extension requests will not be granted.

## I. Approved Cleanup Levels

### A. Soil Cleanup Levels

Shell OPUS shall remediate the soil contamination to the Department's most recent general guidance on contaminant cleanup criteria, which can be found in the January 1998, <u>Guidance Document for the Remediation of Contaminated Soils</u> Properties that meet the most restrictive soil criteria throughout the soil column are considered "clean" and are appropriate for unrestricted use depending on the following criteria

- When the "Residential Direct Contact soil cleanup criteria" are more stringent than the "Impact to Ground Water soil cleanup criteria," the entire soil column shall be remediated to the applicable "Residential Direct Contact soil cleanup criteria" to avoid institutional controls for any remaining contamination. This ensures that future site activities will not enable contaminated materials to be brought to the surface creating a potential environmental or health threat.
- 2. When the "Impact to Ground Water soil cleanup criteria," which are intended to be protective of ground water, are more stringent than the "Residential Direct Contact soil cleanup criteria," the entire soil column shall be

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remediated to the applicable "Impact to Ground Water soil cleanup criteria." Remediation of the entire soil column to the "Impact to Ground Water soil cleanup criteria" ensures that continued contamination of ground water to levels above the applicable Ground Water Quality Standards (N.J.A.C. 7:9-6), does not occur

- 3. Soil contaminant levels must be remediated to a level below 1,000 parts per million (ppm) total volatile organic contaminants (TVO) and 10,000 ppm total organic contaminants (TOC) throughout the soil column
- 4. All future data submissions for soils should be evaluated using the Department's latest evaluation criteria.

Following are the site cleanup levels that shall be achieved for unrestricted use/protection of ground water.

Soil Contaminant Cleanup Crit	<u>eria</u>	
•	Residential Direct Contact	Impact to Ground Water
Compound	Soil Cleanup Criteria [mg/kg]	Soil Cleanup Criteria [mg/kg]
Volatile Organics		
Benzene	3	1
Ethylbenzene	1,000	100
Toluene	1,000	500
Xylenes (Total)	410	67
MTBE		3.1
Other .		
Lead	400	

B. Ground Water Cleanup Levels in accordance with the Ground Water Quality Standards N.J.A.C. 7:9-6.

Compound	Cleanup Levels (ppb)
Volatile Organics	
Benzene	1
Ethylbenzene	700
Methyl-tert-butyl ether (MTBE)	70
Tert-butyl alcohol (TBA)	100
Toluene	1,000
Xylenes (total)	1,000
Base Neutral Organic Compounds	
Naphthalene	300
Synthetic Organic Chemicals <sup>1</sup>	
Individual	100
Total	500

<sup>&</sup>lt;sup>1</sup>: The interim generic criteria for synthetic organic chemicals were established in N J A C. 7:9-6. The individual and total criteria presented above are for non-carcinogenic compounds.

## II. Areas of Concern

#### A. Soils

Historical soil sampling analytical results detected benzene, ethylbenzene and xylenes above the impact to groundwater soil standards in the area of the pump islands. The station was closed to perform USI construction upgrades in February 2004. During USI upgrade activities, the UST fill port and turbine containment sumps were replaced, all dispensers and dispenser pans were replaced, and new double-walled fiberglass product piping was installed. Soil samples were collected in accordance with N.J.A.C. 7:26E-6.3(b) beneath each dispenser and along the various piping runs. Fifteen (15) soil samples, designated D-1 through D-6 and L-1 through L-9, were collected below the dispensers and during the removal of all appurtenant USI piping. The USI regular, plus and premium piping lines were within two (2) feet of each other and were treated as single piping runs. The samples were analyzed for BTEX and MTBE. MTBE was detected in samples D-4 (9 27 ppm), D-5 (40.2 ppm), D-6 (4.43 ppm) and L-1 (7 71 ppm). All other soil sample concentrations were non-detect (ND) or below the Department's most stringent soil cleanup criteria (SCC).

On February 3, 2004, five (5) soil borings were install using a Geoprobe beneath the dispenser locations The soil borings were designated DGP-1, DGP-2, DGP-3/4, DGP-5 and DGP-6. The borings were installed to depths ranging between 29 and 33 feet below ground surface (bgs). Xylenes were detected above the most stringent SCC in samples DGP-1 (27) @ 148 ppm and DGP-2 (29) @ 942 ppm. Xylenes in DGP-1 (27) were vertically delineated by sample DGP-1 (33) @ 33 feet bgs. Since refusal was encountered in boring DGP-2 @ 29 feet bgs, additional soil samples below 29 feet bgs could not be collected. All other soil sample concentrations in all borings were ND or below the Department's most stringent SCC. The soil sampling results in borings DGP-3/4, DGP-5 and DGP-6 provided vertical delineation for MTBE for dispenser/line samples D-4, D-5, D-6 and L-1.

In February and March 2004, soil vapor extraction (SVE) wells were installed in locations adjacent to the dispensers where D-3, D-4, D-5, D-6, L-1 and DGP-1 were collected. Shell OPUS proposes to remediate soil contamination via SVE

## B. Ground Water

Currently, groundwater sampling is collected on a quarterly basis from site related monitoring wells. The overburden and bedrock groundwater flows have consistently been to the south-southeast based on potentiometric data. During the most recent groundwater sampling event, February 17 and May 25, 2005, groundwater samples were collected from both on and off-site wells. The samples were analyzed for BTEX, MTBE and TBA using EPA Method 624

#### Groundwater Quality - Overburden

Benzene concentrations in the overburden wells ranged from ND to 484 ppb. The highest concentration was detected in monitoring well MW-57R. Toluene concentrations in the overburden wells ranged from ND to 665 ppb. The highest concentration was detected in monitoring well MW-8R. Ethylbenzene concentrations in the overburden wells ranged from ND to 646 ppb. The highest concentration was detected in monitoring well MW-8R. Xylenes concentrations in the overburden wells ranged from ND to 1,530 ppb. The highest concentration was detected in monitoring well MW-8R MTBE concentrations in the overburden wells ranged from ND to 105 ppb. The highest concentration was detected in monitoring well MW-57R. There were no TBA concentrations detected within the overburden wells during the most recent groundwater sampling event.

## Groundwater Quality - Bedrock

Benzene concentrations in the bedrock wells ranged from ND to 0.64 ppb. The highest concentration was detected in monitoring well MW-27B (D). Toluene concentrations in the bedrock wells ranged from ND to 0.47 ppb. The highest concentration was detected in monitoring well MW-33B (D). Ethylbenzene concentrations in the bedrock wells ranged from ND to 0.45 ppb. The highest concentration was detected in monitoring well MW-40. Xylenes concentrations in the bedrock wells ranged from ND to 0.55 ppb. The highest concentration was detected in monitoring well MW-33B (D). MTBE concentrations in the bedrock wells ranged from ND to 448 ppb. The highest concentration was detected in monitoring well MW-55. There were no TBA concentrations detected within the bedrock wells during the latest groundwater sampling event

### III. Remediation Proposal/Conditions of Approval

## A. Summary of Remedial Action Proposal

Active remediation including operation of a pump and treat and SVE system's are being conducted at the site. Groundwater is extracted from thirteen recovery wells (on-site wells; MW-4, MW-5, MW-19, MW-25, MW-26, MW-28, MW-51, MW-57, MW-57R and MW-59 and off-site wells: MW-1, MW-3R and MW-8R) and is treated via air stripping and granular activated carbon adsorption prior to discharge to the storm sewer. The groundwater pump and treat system was first installed in September 1990 and the current SVE system was initiated at the site in June 2004. Currently, the SVE system includes six wells (MW-4, MW-19, MW-26, MW-57, MW-57R and MW-59).

The proposed remedial action for off-site groundwater at this site is Natural Remediation Compliance Program (NRCP). Groundwater concentrations currently exist above the GWQS within two overburden off-site wells (MW-2 for benzene @ 14 3 ppb and MW-8R for benzene @ 5.2 ppb and xylenes @ 1,530 ppb). Groundwater concentrations in all other off-site wells south of the site are ND or below the GWQS. The groundwater concentrations are low and the Mann Whitney U analysis of these wells confirm a decreasing trend.

## B. Conditions of Approval

#### 1. General

Unless otherwise approved, the treatment system should operate on a 24-hour basis, seven days per week, except for routine maintenance of the system. If for any reason the system is inoperable for more than seven (7) days, Shell OPUS shall notify the Department, in writing, within ten (10) days outlining why the system is not operable, steps that are being taken to repair the system, and when the system will again be operable. If a system shutdown lasting at least seven (7) days is planned, please contact the below listed case manager via phone or letter.

A system's operation log shall be maintained and remain on site to document the operation of the recovery system.

If it is determined that the remedial activities are not effective, a RAW Addendum shall be submitted with the next progress report to address the situation.

## 2. Site Specific

- a) Although soil impact has been defined, delineation to refusal (bedrock) in some instances restricted complete vertical delineation (i.e., DGP-2 @ 29 feet bgs). The Department will evaluate a no further investigation designation for the soil at the site upon completion of the post-remedial sampling.
- b) Shell OPUS shall submit a post remedial soil sampling plan with the next Remedial Action Progress Report (See below, Part III., D, 4). The post remedial sampling plan shall include soil sampling at the same locations and interval(s) that detected soil contamination at the following soil boring locations: PS-15, D-4, D-5, D-6, L-1, DGP-1 and DGP-2. The exact location of the soil boring(s) and the intervals to be screened for sampling must be confirmed by the Department prior to completion. Soil sampling shall be performed and the analytical results submitted to the Department prior to a no further action request.
- c) If contaminants of concern reappear at lower safe drinking water levels and/or if contaminants identified do not meet the conditions of natural remediation in wells MW-33B and MW-33C, Shell OPUS shall install a couplet well down dip in the same bedding planes.
- d) Prior to Shell OPUS requesting a no further action request, the Walthery municipal supply well shall be pumped to waste to evaluate any potential slugs of contamination from entering the municipal well system.

#### C. System Monitoring Conditions

## 1. Pump and Treat Monitoring Requirements

a. Designation and Identification of Monitoring Points

These points shall be used to demonstrate that the form of corrective action will remediate the contaminant plume. The effectiveness of the corrective action measures shall be demonstrated at the source area monitoring points and compliance points using ground water quality and hydraulic monitoring.

An acceptable Natural Remediation Compliance Program requires that a decreasing trend in contaminant concentrations is observed in all source area wells and compliance points; in addition, all sentinel wells shall not exceed the Ground Water Quality Standards (GWQS), N.J.A.C. 7:9-6. The description of the monitoring well designations and monitoring criteria are listed below

- i. Background Monitoring Points: The background monitoring points are upgradient monitoring wells used to establish ambient ground water quality Monitoring well MW-11 shall be utilized as a background monitoring point.
- ii. Source Area Monitoring Points: The source area monitoring points are the monitoring wells located in the source area. These monitoring points are used to determine compliance with the approved ground water cleanup levels, monitor the effectiveness of corrective action, and evaluate when to suspend active corrective action. Monitoring wells: MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, MW-8R, MW-19, MW-20, MW-24, MW-25, MW-26, MW-28, MW-39, MW-40, MW-51, MW-52 MW-55, MW-56,

MW-57R and MW-59 shall be utilized as source area monitoring points. Contaminant concentrations in the source area monitoring points shall show a decreasing trend over time.

- iii. Compliance Monitoring Points: The compliance monitoring points, which are wells located downgradient and sidegradient of the source area, are used to determine compliance with the approved ground water clean up levels and evaluate the effectiveness of corrective action at the source area. Monitoring wells MW-3R, MW-14, MW-15, MW-21, MW-27B, MW-27C, MW-30B, MW-30C MW-32Z7, MW-32B, MW-33B, MW-33C, MW-43Z7, MW-48, MW-49, MW-50, MW-53B, MW-53Z7, MW-54B, MW-54C, and MW-60 shall be utilized as compliance monitoring points. The compliance monitoring points shall remain below the ground water cleanup levels or show decreasing concentrations.
- iv. Sentinel Wells A sentinel well is a well located at a point between the furthest downgradient edge of the plume and the closest human or ecological receptor. A sentinel well shall be located no less than one year contaminant travel time from the nearest human or ecological receptor, and no greater than five years travel time from the down gradient edge of the plume. The ground water quality at these monitoring points must be at or below the GWQS for the contaminants of concern. Sentinel wells are used to ensure that complete contaminant degradation to the GWQS has occurred upgradient of these locations. These wells also ensure that contamination is not migrating, and thus acting as an early warning system for the protection of human and ecological receptors. The sentinel wells for this site shall be designated as: MW-22, MW-30D, MW-33B, MW-33C, MW-38B, MW-38C, MW-41, MW-42, MW-43Z5, MW-58B and MW-58Z7.

## b. Ground Water Sampling Frequency and Analysis

Sampling frequency and analyses shall be completed in accordance with Table 1 and 2.

**Table 1** Sampling requirements for ground water monitoring wells MW-1, MW2, MW-3R, MW-4, MW-5, MW-7, MW-8R, MW-14, MW-19, MW-20, MW-22, MW-25, MW-26, MW-27B, MW-27C, MW-30D, MW-33B, MW-33C, MW-37Z6, MW-37Z7, MW-38B, MW-38C, MW-39, MW-40, MW-41, MW-42, MW-43Z5, MW-51, MW-52, MW-53B, MW-55, MW-56, MW-57R, MW-58B, MW-58Z7 and MW-59

•		SAMPLING	<u>REPORTING</u>
PARAMETER	<u>UNITS</u>	MONTH	<b>MONTH</b>
Elevation of top of monitoring well casing (determined once but		MayNov	JanJul
reported as indicated)			
Depth to Water Table from top of casing prior to sampling		MayNov	JanJul
Depth to Water Table from original ground level prior to		MayNov	<b>JanJul</b>
sampling			
Dissolved Oxygen	ppm	MayNov	<b>JanJul</b>
Floating product thickness	In	MayNov	JanJul
pH	SU	MayNov	JanJul
Benzene	ppb	MayNov	JanJul
Ethylbenzene	ppb	MayNov	JanJul
Methyl tertiary butyl ether (MTBE)	ppb	MayNov	JanJul
Tertiary butyl alcohol (TBA)	ppb	MayNov	JanJul
Toluene	ppb	MayNov	JanJul
o,m,p Xylenes	ppb	MayNov	JanJul
Total Volatile Organics by GC/MS	ppb	May	Jul

**Table 2.** Sampling requirements for ground water monitoring wells MW-6, MW-11, MW-15, MW-21, MW-24, MW-28, MW-30B, MW-30C, MW-32B, MW-32Z7, MW-43Z7, MW-48, MW-49, MW-50, MW-53Z7, MW-54B, MW-54C, and MW-60

		<u>SAMPLING</u>	REPORTING
PARAMETER	<u>UNITS</u>	<b>MONTH</b>	<b>MONTH</b>
Elevation of top of monitoring well casing (determined once but		May	Jul
reported as indicated)			
Depth to Water Table from top of casing prior to sampling		May	Jul
Depth to Water Table from original ground level prior to		May	Jul
sampling			
Dissolved Oxygen	ppm	May	Jul
Floating product thickness	In	May	Jul
pH	SU	May	Jul
Benzene	ppb	May	Jul
Ethylbenzene	ppb	May	Jul
Methyl tertiary butyl ether (MIBE)	ppb	May	Jul
Tertiary butyl alcohol (TBA)	ppb	May	Jul
Toluene	ppb	May	Jul
o,m,p Xylenes	ppb	May	Jul
Total Volatile Organics by GC/MS	ppb	May	Jul

- NOTES ① If separate phase product is present in a well, Shell OPUS does not have to sample for the parameters listed in Tables 1 or 2. All ground water elevations shall be determined prior to evacuation and sampling of the wells. In addition, the laboratory and sampling personnel shall report if there is any visible sheen on the water sample or if any odors are detected.
  - ② Volatile Organics shall be analyzed using 40 CFR Part 136-Method 602 (or alternate acceptable analyses) or Method 624 for total volatile with a library search (VOs), as appropriate.
  - If the Village of Ridgewood reactivates the Walthery municipal supply well, Shell OPUS shall sample wells MW-33B, MW-33C, MW-37Z6, MW-37Z7, MW-49, MW-50 and the Walthery municipal well monthly during the first quarter of system operation. If sampling results are below the GWQS for all contaminants of concern, the sampling frequency can be reduced to quarterly for a period of one year. Following this one-year period, sampling frequency can be reduced to yearly

## 2. Soil Vapor Extraction (SVE)

The zone of influence of the SVE shall encompass the entire source area. If the zone of influence of the SVE does not include the source area, Shell OPUS shall propose modifications to the SVE in the remedial action progress report and include a schedule for implementation.

The vapor discharge will be regulated and monitored under an Air Pollution Control Permit issued by the Department. The operation of any remedial system shall not create or worsen any vapor or ground water problem.

a. If system modifications are made, Shell OPUS shall insure that the SVE system influences the entire source area. Prior to initiation of the modifications, Shell OPUS shall field sample all vapor monitoring and extraction points according to Table 3. The vapor monitoring points are SVE-1, SVE-2, SVE-3 and SVE-4. The vapor extraction points are MW-4, MW-19, MW-26, MW-57, MW-57R and MW-59.

The sample(s) shall be collected using bag samples and may be analyzed utilizing a properly calibrated field instrument (OVA, TIP, PID etc.). The methodology for the collection of the bag samples is discussed on page 227 of the Department's <u>Field Sampling Procedures Manual</u> dated May 1992 (Field Manual). The bag samples shall be taken from a valved sampling port. In addition, Shell OPUS shall submit the field analysis results along with the background readings and instrument calibration procedures for all field equipment utilized.

b. Following the initiation of the SVE system, Shell OPUS shall monitor all vapor extraction points and vapor monitoring points listed in Condition III.C.2.a. according to the schedule in Table 3, below. Vacuum pressure readings shall also be taken from all vapor monitoring and extraction points.

- c. The sample with the highest field sample value shall be laboratory analyzed according to the schedule outlined in table 4 using EPA Reference Method 18 or an appropriate analytical method as referred to in the documents listed on page 229 of the Field Manual (e.g., TO15 or TO17).
- d. Shell OPUS shall calculate contaminant removal rates and construct vacuum pressure contour maps. This information shall be submitted with the progress report.

Table 3. Monitoring requirements for all vapor extraction and monitoring points.

PARAMETER	<u>UNIIS</u>	SAMPLING MONTH @	REPORTING MONTH®
Vacuum Pressure	in H <sub>2</sub> O	QUARTERLY	JanJul
Total Organics Contaminants ①	ppm	QUARTERLY	JanJul

Table 4. Sampling requirements for the vapor extraction system 3

		SAMPLING	REPORTING
PARAMETER	UNITS	MO <u>NTH</u>	MONTH @
Air Flow Rates	cfm	QUARTERLY	JanJul
Benzene	ppm	QUARTERLY	JanJul
Ethylbenzene	ppb	QUARTERLY	JanJul
Toluene	ppb	QUARTERLY	JanJul
o,m,p Xylenes	ppb	QUARTERLY	JanJul
MIBE	ppb	QUARTERLY	JanJul
TBA .	ppb	QUARIERLY	JanJul

- NOTES: ① Iotal Organic Contaminants shall be field determined according to the sample collection and analysis procedures in Condition III C 2.a
  - Sampling shall be conducted monthly during the first quarter of system operation

		SAMPLING	REPORTING
PARAMETER	<u>UNITS</u>	MO <u>NTH</u>	MONTH @
Air Flow Rates	cfm	QUARTERLY	JanJul
Benzene	ppm	QUARTERLY	JanJul
Ethylbenzene	ppb	QUARTERLY	JanJul
Toluene	ppb	QUARTERLY	JanJul
o,m,p Xylenes	ppb	QUARTERLY	JanJul
MTBE	ppb	QUARTERLY	JanJul
TBA	ppb	QUARTERLY	JanJul
		=	

- NOTES ① Total Organic Contaminants shall be field determined according to the sample collection and analysis procedures in Condition III C 2.a.
  - ② If system modifications are implemented, sampling shall be conducted monthly during the first quarter of system operation
  - If free product is detected in any monitoring points within the area of influence of the SVE system, one baseline sample shall be taken at the time of system startup. No additional samples would be required until free product is reduced to sheens in these monitoring points. If free product has not been detected in the radius of influence or has been reduced to sheens (less than 0.01 inches of product) within this area, samples shall be taken quarterly for a period of one year. Following this one-year period, sampling frequency can be reduced to yearly. At least one sample shall be taken prior to system shutdown.
  - Reporting months are in January and July.

### 3. Quality Control

In accordance with N.J.A.C. 7:26E-2.1(a)13iii, Full or Reduced Laboratory Deliverables are not required to be submitted at this time since long-term ground water monitoring is required at this site. However, the following information shall be submitted until otherwise directed by the Department:

- a. A cover page, including facility name and address, laboratory name and address, laboratory certification number, if applicable, date of analytical report preparation and signature of laboratory director;
- b. A listing of all field sample identification numbers and corresponding laboratory sample identification numbers;
- c. A listing of all analytical methods used;
- d. The method detection limit and practical quantitation level for each analyte for each sample analysis;
- e. All sample results including date of analysis;
- All method blank results;
- g. All chain of custody documentation; and
- h. The nonconformance summary.

## D. Reporting and Evaluation Requirements

## 1. Remedial Action Progress Reports

- a. Shell OPUS shall submit to the Department written remedial action progress reports detailing the implementation of the Remedial Action Workplan. The Remedial Action Progress Reports shall be submitted by the end of each reporting month, which are January and July. The progress reports shall identify and state the status of each area of concern identified in the approved Remedial Action Workplan. Each progress report shall include all of the information required under N.J.A.C. 7:26E-6.5(b). Each progress report shall also include the information below.
  - i. The following variables recorded in tabular form for all monitoring wells: product and water level measurements shall be to the nearest 0 01 foot; elevation of top of monitoring well casing (to be determined once but reported as indicated); top of screen elevation (to be determined once but reported as indicated); depth to water table from top of casing prior to sampling; depth to water table from original ground level prior to sampling; water table elevation; product thickness, if present
  - ii. Ground water table contour maps and isopleth maps of dissolved product concentrations. A Ground Water Contour Map reporting form, as found in Appendix G of N J.A C. 7:26E, shall be submitted with each ground water contour map
  - iii. Graphs of specific contaminant concentrations over time from the time the monitoring wells were installed.

If modifications to the cleanup schedule are anticipated during implementation of the referenced Remedial Action Workplan, Shell OPUS shall submit a revised cleanup schedule with the subsequent progress report Based on a review of this schedule, the Department will approve or disapprove the revised cleanup schedule If the revised cleanup schedule is disapproved, the Department will note the reasons for the disapproval

- b. Shell OPUS shall submit progress reports semi-annually unless one or more of the following conditions occur:
  - Contaminant levels are non-decreasing in any source area or compliance monitoring point;
  - ii. Contaminant levels exceed the ground water quality standard in any sentinel well.

iii. Contaminant levels detected in monitoring wells do not reflect of the contaminant levels predicted by a Department approved ground water model.

When one or more of the conditions above occur, progress reports shall be submitted quarterly until the Department approves a reduction in submittal frequency.

#### 2. Remedial Action Schedule

Shell OPUS shall comply with the requirements of N J.A.C. 7:26E-6.5(a). The schedule shall be submitted to the Department every six months [January and July], and shall be included in the Remedial Action Progress Report being submitted that quarter.

As stated above, if a revision in the cleanup schedule is anticipated, then a modification to the cleanup schedule must be submitted with the subsequent progress report.

### 3. Annual Remedial Action Evaluation

In order to ascertain the effectiveness of the remedial action, Shell OPUS shall evaluate the remedial activities on a yearly basis. This Yearly Evaluation shall be included with the semi-annual progress report, starting with the July 2006 progress report. The evaluation shall assess the remedial action, to date; and particularly if the ground water contamination is degrading. The evaluation shall be substantiated with hydrogeologic and/or technical reasons for the conclusion.

If it is determined that the natural remediation is not appropriate for this site (e.g. contaminant concentrations are increasing or not decreasing) then Shell OPUS shall propose a modification of the corrective action system to achieve the required cleanup levels. The proposed modification shall be included as a RAW Addendum in next progress report (including any revisions in the remedial action schedule).

## 4. Final Remedial Action Report

#### Post Remedial Sampling Plan

Shell OPUS shall conduct the post remedial soil sampling in accordance with N.J.A.C. 7:26E-6. Shell OPUS shall, therefore, submit a plan for the post remedial soil sampling with the first quarterly progress report.

Shell OPUS shall submit a final written Remedial Action Report in accordance with N.J.A.C. 7:26E-6.6 detailing the actual cleanup actions performed and final cleanup costs, including overhead, compared to the cleanup actions, schedule and costs approved in the Remedial Action Workplan. The report shall also include the dates of cleanup activities, additional sampling results, and other pertinent information. A Remedial Action Report guidance document is enclosed for your reference.

A summary of the total cost of cleanup shall be submitted with any request for "No Further Action". This shall be broken down to include tank removal and disposal costs, capital costs including monitoring systems and equipment, mobilization costs, operation and maintenance (including labor, utilities and repairs), consulting and labor costs including engineering, environmental, legal and administrative costs, analytical/laboratory costs, sample collect costs, and disposal costs including transportation, waste transfer fees and facility tipping fees.

## 5. Contingency Plan

A RAW Addendum shall be submitted within thirty (30) days upon determination that either of the following has occurred:

- a. The data indicate contaminants are detected above the applicable GWQS in any sentinel well. The well shall be resampled to confirm the results within four weeks after receipt of verbal results from the laboratory or within two weeks after receipt of written results from the laboratory, whichever is earlier.
- b. The data indicate that contaminant degradation is not occurring at this site. For example, non-decreasing concentrations in the source area monitoring wells, or evidence that the plume is continuing to migrate.

## E. Termination of the Natural Remediation Compliance Program

- 1. The program may be suspended when:
  - a. The contaminant concentrations at the source area and plume monitoring points are at or below the GWQS for two consecutive monitoring events. In evaluating non-detectable concentrations, it is important to ensure that the practical quantification limits (PQL) are less than the GWQS

or

b. It has been demonstrated to the Department's satisfaction that the contaminant levels in the source area monitoring wells are decreasing and have been sufficiently reduced such that the water quality in the plume monitoring points and sentinel wells are not expected to exceed the GWQS. Such a demonstration shall include calculations to determine the amount of time required for the contaminant concentrations in the source area monitoring wells to decrease to the GWQS. These calculations shall be used to revise the CEA for the site. The newly calculated CEA shall be included in the request to terminate the NRCP.

## IV. Classification Exception Area (CEA)

When contamination remains on site above an applicable remediation standard, institutional controls are required pursuant to N.J.S.A. 58:10B-13. Because contaminant levels remain above the Ground Water Quality Standards (GWQS), N.J.A.C. 7:9-6, a Classification Exception Area (CEA) and Well Restriction Area (WRA) are required at this time. The Department may establish a CEA and WRA for the affected area to accomplish the institutional control. Pursuant to 7:9-6.6, a CEA may be established when the Department determines that the GWQS will not be met in a localized area due to pollution. Designated uses, for example, use of ground water as a potable water supply, may not be possible without the proper precautions. The Department is also obligated to establish a WRA in conjunction with the CEA where contaminant levels exceed Primary Drinking Water Standards in an aquifer classification that includes potable use.

The regulatory program overseeing the implementation of the CEA for this site is the Underground Storage of Hazardous Substances Act, N.J.S.A. 58:10A, and its implementing regulation, N.J.A.C. 7:14B-1 - 13 and 15. The CEA and WRA are based, in part, on the aquifer characteristics, contaminant data, and evaluations provided in the July and December 2005 reports. The CEA and WRA are currently defined by the area identified on the enclosed map. Any special conditions or restrictions for water use within the WRA will be administered by the Department's Bureau of Water Allocation.

The CEA and WRA apply to benzene, xylenes and MTBE only. All other constituent standards apply within the CEA. All constituent standards (N.J.A.C. 7:9-6) apply at the designated boundary. All designated ground water uses within this area are suspended for the duration of the CEA. Pursuant to N.J.A.C. 7:9-6.4, "designated use" means a present or potential use of ground water which is to be maintained, restored and enhanced within a ground water classification area as determined by 7:9-6.5. Pursuant to 7:9-6.5, this area is presently designated as Class II-A. The primary designated use for Class II-A ground water is potable water; secondary uses include agricultural and industrial water.

The duration of the CEA and WRA is indeterminate and upon completion of active remediation activities, a revised CEA will be submitted to the Department. The specific contaminant criteria as per the GWQS for the contaminants of concern are referenced in Section I., above. Compliance may be determined by Shell OPUS by demonstrating that the GWQS have been met for the referenced constituent(s) through ground water sampling.

Please note that the boundary of the CEA and WRA shall be re-evaluated prior to any request for a No Further Action Letter. Significant changes in site conditions and/or site data shall also trigger a re-evaluation of the CEA and WRA.

## V. Permit Requirements

A. An air permit must be obtained in order to operate any vapor recovery system.

## VI. General Conditions

A. Shell OPUS shall comply with all federal, state, and local laws, regulations, and ordinances in implementing the approved RAW. Shell OPUS shall submit applications for all required federal, state, and local permits to the appropriate regulatory authority within thirty (30) days of the receipt of this RAW Approval. Should any condition or

limitation of said permits be more stringent than those in the approved RAW, then said permit requirements shall supersede the terms of this approval. Shell OPUS shall submit a copy of each application to the Case Manager

- B. Upon the written request of the Department, Shell OPUS shall submit for Department review and approval any additional RAW amendments deemed necessary by the Department during the implementation of a RAW to delineate fully the nature and extent of environmental contamination associated with the discharge(s) from the underground storage tank systems. Shell OPUS shall implement and complete any such additional RAW amendments, and submit the results in accordance with the time frames set forth in the approved additional RAW amendments. Furthermore, Shell OPUS shall prepare and submit to the Department for approval any revisions to the RAW necessary to remediate any additional environmental contamination associated with the underground storage tank discharges as identified during the RAW implementation, by any additional sampling, or from any other source of information. Shell OPUS shall revise and submit the required information within thirty (30) calendar days, from receipt of written notification from the Department.
- C. Shell OPUS shall collect all samples in accordance with the sampling protocol outlined in the May 1992 edition of the Department's "Field Sampling Procedures Manual."
- D. The requirement for remediation of all environmental contamination associated with the underground storage tank system(s) at Shell OPUS's facility and the terms and conditions of the approved RAW shall be binding upon Shell OPUS, and its officers, principals, management officials, successors in interest, assigns, agents, tenants, and any trustee in bankruptcy or receiver appointed pursuant to a proceeding in law or equity.
- E. Shell OPUS shall notify the assigned Case Manager at least fourteen (14) calendar days prior to the initiation of any and all investigation/remediation activities at the site so that the Case Manager may be present.

The Department's approval, as conditioned above, is limited to the above referenced RAW only and is based upon information provided by Shell OPUS to the Department. This RAW Approval shall not limit, restrict, or prohibit the Department from directing on-site or off-site cleanup, if deemed necessary by the Department, under any other statute, rule, or regulation. Shell OPUS is hereby required to fully implement the referenced RAW, as conditioned above, in accordance with the time schedule as set forth therein.

This Remedial Action Workplan approval is limited to the areas of concern referenced above and should not be construed to address any and all potential areas of concern at the above referenced site.

Please note, pursuant to N.J.S.A. 58:10A-21 (et seq.) and N.J.A.C. 7:14B (et seq.), the owner and operator of the regulated underground storage tanks are strictly liable for compliance with these requirements. In addition, all state regulated USTs, except for heating oil for on-site consumption, are regulated under 40 CFR Part 280. Non-compliance with these federal and state regulations exposes the tank owner and operator to the penalty and liability specified in 40 CFR Part 280, N.J.S.A. 58:10A-21 (et seq.) and N.J.A.C. 7:14B (et seq.)

If you require copies of Departmental Guidance Documents or applications, many of these documents are available on the internet at WWW.SIATE.NJ.US/DEP/SRP If you have any questions concerning this document, please contact Donna Plummer, Case Manager, at (609) 633-6839.

Sincerely,

William S. Hose, Section Chief

Bureau of Southern Case Management

enclosures:

USGS or Hagstrom map Site Locus Map c: Donna Plummer, Case Manager, BSCM, w/o enclosures
Louis Karagias, DAG
Nadine Drake, BFMC&R
William Mowell, Ridgewood Department of Water Supply
Jeffrey W. Moryan, Connell Foley LLP
William J. Groeling, EnviroTrac
Carol Wagner, Fair Lawn Health Department
Anthony DeCandia, Bergen County Dept. of Health Services
Mayor/Clerk, City of Ridgewood
County Planning Board
NJDEP-Bureau of Water Allocation
NJDEP-John Defina, Bureau of Planning & Systems, P.O. Box 413
NJDEP-Environmental Claims Administration
NJDEP-Bureau of Safe Drinking Water

# Classification Exception Area/Well Restriction Area

**Case Information** 

Subject Item

Designation

CEA100037967

87-06-25-03m

Case ID: 004739 - USR000001

Preferred Id: 004739

Case:

Shell Service Station #229-7170-0301

Address:

657 Franklin Tpke

City: Ridgewood Village

County: Bergen

Lot and Block of the Case

Block 4703

Lot

See Exhibit A [Site Location Map]

Lot and Block of the CEA

**Municipality** Block Subject Item Ridgewood Village 18 CEA100037967 3003 Ridgewood Village 4703 14 CEA100037967

**Facility Contact** 

Agent: Company: **DOUG WEIMER** 

**MOTIVA** 

Address:

3800 PICKET ROAD

FAIRFAX, VA 22031

Responsible Party:

Chris Jones

Company:

Motiva Enterprises Llc

Address:

520 Allens Ave

Providence, RI 02905

DEP

Donna Plummer

(609)633-6839

Department Oversight Document: 3-17-06

**CEA Information** 

Subject Item CEA100037967

**Description** 

The CEA extends from the site to

Valley Valleau Cemetary

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Subject Item
CEA100037967

Affected Aquifer
Passaic Formation

Vertical Depth

Subject Item
CEA100037967

Classification

П-А

Contaminant\_

This CEA/WRA applies only to the contaminants listed in the table below, The ground water quality criteria / primary drinking water standards for these contaminants are listed in parts per billion (ppb). All constituents standards (N.J.A.C. 7:9:9-6) apply at the designated boundary.

Subject Item	Contaminant	Concentration i	$GWQS \square$
CEA100037967	Benzene	484 Micrograms Per Liter	1 Micrograms Per Liter
CEA100037967	Methyl tert-butyl ether	91 Micrograms Per Liter	70 Micrograms Per Liter
CEA100037967	Xylenes (total)	2120 Micrograms Per Liter	1000 Micrograms Per Liter

Site

Note:

Maximum concentration detected at the time of CEA establishment

☐ Ground Water Quality Standards

**CEA Boundaries:** 

horizontal

See Exhibit B (CEA/WRA Location Map)

vertical

See Exhibit B (CEA/WRA Location Map)

Included in affected aquifer above

## Projected Term of CEA:

Subject Item
CEA100037967

Date Established

1/18/2006

Subject Item CEA100037967 Duration in Years (999" is equivalent to "indeterminate" duration)

999.

Subject Item CEA100037967 Date Lifted

## Comment

Note

Since groundwater quality data indicates exceedance of contaminants above the Primary Drinking Water Standards, and the designated uses of Class II-A aquifers include potable use, the CEA established for this site is also a Well restriction Area. The extent of Well Restriction shall coincide with the boundaries of the CEA

## Well Restrictions set within the boundaries of the CEA

03/16/2006

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Subject Item	Restriction
CEA100037967	Double Case Wells: With the exception of monitoring wells installed
	into the first water bearing zone, any proposed well to be installed within
	the CEA/WRA boundary shall be double cased to an appropriate depth
	in order to prevent any vertical contaminant migration pathways. This
	depth is either into a confining layer or 50 feet below the vertical extent
	of the CEA.
CEA100037967	Sample Potable Wells: Any potable well to be installed within the
-	footprint of the CEA/WRA shall be sampled annually for the parameters
	of concern. The first sample shall be collected prior to using the well. If
	contamination is detected, contact your local Health Department If the
	contamination is above the Safe Drinking Water Standards, then the
	NJDEP Hot Line should be called. Treatment is required for any well
	that has contamination above the Safe Drinking Water Standards.
CEA100037967	Evaluate Production Wells: Any proposed high capacity production
	wells in the immediate vicinity of the CEA/WRA should be pre-
	evaluated to determine if pumping from these wells would draw a
	portion of the contaminant plume into the cone of capture of the
	production wells or alter the configuration of the contaminant plume.

## Site Specific Well Restrictions

Restriction

CEA100037967	